

the RARS

Exciter

Raleigh Amateur Radio Society



November, 2003 Number 391



HAMS ASSIST FOLLOWING ISABEL'S FURY

Photo from MODIS Rapid Response Team, NASA Goddard Space Flight Center

The Exciter

The **Exciter** is the monthly newsletter of the Raleigh Amateur Radio Society. It is available in both printed and electronic form. The printed version is mailed to members just before each club meeting. The electronic form, in Adobe Acrobat PDF format, is e-mailed about a week earlier.

We solicit both articles and advertising. The deadline for submissions is first Friday of the month or Friday after the monthly meeting. Contact the Editor.

The views contained in the Exciter are those of the individual authors, and are not necessarily the views of the Editor, or the Raleigh Amateur Radio Society.

The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the Amateur Radio community in the greater Triangle area. In 1999, we incorporated a new RARS, and obtained 501(c)(3) Non-Profit tax status.

The objectives of the club are to promote worldwide friend-ship through Amateur Radio; to be of public service by providing radio communications in times of disaster, emergency, or civic need; to educate members in radio technique; and to provide training classes to assist in obtaining Amateur Radio licenses.

Anyone interested in Amateur Radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18.00 per year (from July 1 through June 30). Additional immediate family members pay \$5.00 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12.00 per year. Dues for non-licensed Associate members are \$9.00 per year.

Applications for membership may be obtained from the treasurer, or the RARS web site (www.rars.org).

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INFO

RARS Repeaters in Raleigh:
145.13
146.64
224.64
444.525 (88.5 PL)

WEB SITE <http://www.rars.org>

NEXT RARS MEETING: **November 4, 2003** **Junk Yard Antenna Wars**

RALEIGH AMATEUR RADIO SOCIETY MEETINGS

Date: Every first Tuesday of the Month

Location: Forest Hills Baptist Church, at Dixie Trail and Clark Avenue, in Raleigh

Time: 7:30pm. Folks start showing up a bit before 7 to chat, brag and eat donuts.

VE TESTING: The RARS VEs will accept walk-in testing which is on even months except April and December. Please bring a photo ID, your original current license if you have one, and any CSCEs you need for credit.. Check into the 8:00 pm net every night on the 146.64 repeater or www.rars.org for information.



RARS MEMBERSHIP DUES

Membership renewals and new membership can be paid at RARS meetings, on-line at the club site, or mailed to the RARS treasurer. Mail To:

Greg Seamster
RARS Treasurer
1405 Leanne Court
Raleigh, NC 27606

RARS now accepts credit card payments online for new members and membership renewals. See the RARS website (www.rars.org) for more information. You can join or renew for 1, 2, or 3 years.

THANK YOU TO ALL WHO HELPED WITH THE HURRICANE SHELTERS AND COMMUNICATIONS. Your time and efforts were appreciated.



FROM RALEIGH AMATEUR RADIO SOCIETY

146.88 145.39, 147.105, & 147.135
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**NET REPORTS
FOR OCTOBER, 2003**

8:00PM DAILY: RARS Evening Net

Participants 407
Traffic 39/34
Time 767 minutes
Sessions 30

**8:30PM SAT: Tech & Traders Net
9:00PM MON: SWL/SIG**

Participants 61
Traffic 1/1
Time 362 Minutes
Sessions 7

DIFFERENT KIND OF FAIR

By Mary KG4OQA



Photo by Gordon West WB6NOA

When I say "volunteer your radio talents at the fair," hams around this area, I think of our annual support of Red Cross communications at our NC State Fair, which I volunteer for and thoroughly enjoy. However, for the past two summers I have had business--related meetings in bright, sunny southern California (Orange County) during their county fair time, and have been able to participate as a volunteer for a different kind of fair experience during my off-hours.

Led by Gordon West WB6NOA and the many clubs in the Orange County area, the hams have an amateur radio booth in one of the fair buildings. They set up radios, provide information about license requirements, and answer questions about ham radio to all who stop by the booth. One of

the most popular parts of this booth is the Morse code keyer display, in which volunteers coach interested children and adults to spell their name in Morse code. After they successfully do this, in true ham fashion, we give them a certificate to show off their accomplishments!

This type of event gives wonderful exposure to amateur radio. Many people stop by only to do the Morse code keyer, but then take an interest in learning more about radio and how they can be licensed. It also provides a good forum for the different clubs in the area to work together and promote amateur radio.

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MY SHACK IS ANYWHERE I NEED IT

By Bob K4RLC

My shack is wherever I can set it up. Due to my work, I spend about 60 hours a week in the office or hospital. After work, I want to be outside, in the fresh air. So, a portable shack is my favorite place. Many times I set up a DX-70TH, MFJ Portable Tuner and a gel cell on a beach umbrella stand. The antenna, an Inverted-V for 20meters is supported by a fishing pole tied to the kids' Little Tykes wagon, and held down with fishing line and plastic tent pegs (to not detune the antenna). The attached photo was taken just before the tide came in on a windy January day, and I was sitting in six inches of salt water - but working Swaziland. With the FT-817 and the ATX whip antenna (trailing a tuned counterpoise), I can work HF while walking at the beach, in a park, or on a trail. In the future, I hope to work HF in Antarctica or Mt. Everest or Tahiti. Anyone want to go?

If you have a shack that you would like to share with the membership, please email, snail mail or contact the Exciter Editor. Pictures are not required.

MINUTES OF THE RARS BOARD MEETING, TUESDAY, SEPT 16, 2003

The RARS board meeting was held at Forest Hills Baptist Church on Tuesday, Aug 19, 2003. Members present were: K1RCB, K4HF, K4HM, KA2FWC, KE4PAX, KG4FIJ, KN4AQ, NI4S, W4BRB, W8HYD, WA2UZO. Total present including guests: 12.

The meeting was called to order by W4BRB at 7:35 PM.

On motion by K4HF, second by KA2FWC, the minutes of the August board meeting were approved.

V.P. Report (NI4S): Auction will take place at October club meeting. Program at November club meeting will be "Improvising Antennas," by N4TAB and KF4VXJ.

FM Committee (KA2FWC): Looking into a "drop-out" problem with 525 repeater. Discussed generator back-up for 525 repeater.

Exciter: No report.

Net Manager: No report.

Membership Services: No report.

Hamfest (K4HM): Hamfest committee meeting will be held on Sept 29th. In need of a security chief.

Treasurer's Report (KE4PAX): Currently have 235 members

Education Committee (W8HYD): Planning a General Class starting Oct 13th, to run Mon and Wed nights through Nov 17th (total of 9 sessions). KN4AQ reiterated the need for "elmers" for new class graduates.

ARRL Liaison (K4HF): \$180,000 has been funded to ARRL to continue online emergency communication courses.

Nominating Committee (K4HF): The nominating committee reported the following slate to be nominated for election at the November meeting: Nominations for the Board are: NI4S for President; KG4PFA for Secretary; W8HYD for V.P. (to fill out 2nd year in place of NI4S); WA9SZL for At-Large Director; KG4RMT for At-Large Director; KG4FIJ for At-Large Director; K4RLC for Education Director. New nomination is W4NOT for Webmaster.

W4DW/W4RNC Trustee: No report.

At-Large (W8HYD): Nothing to report.

Public Service (K1RCB): MS-150 was very successful, with well over 950 bikers. The MS organization is very pleased and appreciative of the communications team. Autism event is coming up in October.

Public Information (KN4AQ): Will be working with Wake ARES during upcoming hurricane, and will send press releases to local media to publicize hams' role in hurricane situations.

Special or Ad-Hoc Committees: None.

Unfinished Business: W8HYD reported that Camille Dufree received her license with callsign KI4CED. Total expenses to send Camille to Handi-Ham Camp is \$546. The president directed that our donation of \$500 be increased to cover the total expense amount.

New Business:

K4HF reported that he has been in contact with the BPL (Broadband by Power Line) project team leader from Progress Energy. He is willing to work with the amateur radio community on a technical level.

K4HF moved the Club donate \$250 to ARRL for their effort to fight BPL. Seconded by KG4FIJ. After discussion the President assigned the Treasurer to look into the budget implications and report back at next meeting. K4HF and KG4FIJ agreed to table their motion.

Upon motion by NI4S, the meeting was adjourned at 9:30 PM.

PICTURES FROM THE MS150 BIKE TOUR

Photos by Gary KN4AQ



Bob K1RCB (Coordinator) his wife Marian K1MRB (in blue) With the MS Coordinators Mindy and Roxanne



Bob K1RCB, Chuck K4HF & Bill KG4IZ



Bruce N8UTY net control for MS150 Bike Tour



Jim N4BYO sets the radio on his bike with Frank KA2FWC



Kenneth KE4BKR at rest stop 3

My Perspective on the MS-150

Andy Peterson, NI4S



Andy NI4S working with APRS at the MS150

A few weeks ago, I got to participate in one of my favorite ham radio events. After Field Day is done and before the contesting season begins, the MS-150 Bike Tour occupies a cherished spot on my calendar.

The first MS-related event I helped with was probably around the spring of 1992. I'd helped with a few other walk-a-thons and other events to that point. The MS Walk, benefiting the Fox Valley (Illinois) chapter of the National Multiple Sclerosis Society, was different. It was around that same time that my father, just shy of age forty, was diagnosed with Multiple Sclerosis.

While probably more well-informed than the average person, I won't pretend to be an expert on the disease – for that, I'll refer you to <http://www.nmss.org>.

Hams ought to appreciate the way MS affects the central nervous system. Think of nerves as insulated conductors carrying impulses throughout the body. In MS patients, the “insulation” around the nerves is gradually destroyed, so that signals can't propagate well, or become mixed up.

One of the themes of the past few years' MS-150 is that it's a genuine mystery. Its cause is unknown, though both genetic and environmental factors seem to be at play. There's no way to predict the course it will take. There are some drugs on the market, but it's difficult to tell who will respond to which one, other than by experimenting.

Diagnosing MS is complex; it's done by ruling out several other possible explanations for the symptoms. In my father's case, it started with loss of feeling in the fingers and toes coupled with headaches. Doctors used several tests to rule out other causes.

Each case of MS is fairly unique in its set of symptoms and progression. I can definitely testify that a common factor in all cases is the life-changing effect the disease has on the sufferer and those around him or her.

I enjoy helping with the MS-150. The Eastern NC Multiple Sclerosis Society has but one mission and drive – to eradicate Multiple Sclerosis. That's a mission I can really get behind. As much as I enjoy helping out, I look forward to the day when there'll be no reason to hold another MS-150 Tour!



Photos by Gary KN4AQ

Sea of bikes at the start of the MS150



This comm. Trailer, built by the Carteret County Amateur Radio Society, was the Command Post for the MS150 Net Control

MINUTES OF THE RARS MEETING, TUESDAY, OCTOBER 6, 2003.
RARS AUCTION 2003

The meeting was called to order by President Bernard Blackmon W4BRB at 7:10 PM.

Two visitors were welcomed.

Treasurer's Report (KE4PAX): There are 240 members

Announcements:

John Guerriero (KG4HDT): Reminded about the upcoming State Fair. There are a total of 60 slots to assist the Red Cross with communications, and about half are filled. Orientation meetings will be Mon and Tues, Oct 13 & 14, at the Cary Red Cross office.

Isreal N4ZVU announced that Camille has passed the technician test and received call sign KI4CED.

KM4EP requested help with the Boy Scout Jamboree coming up on Oct 17-19.

Report of the Nominating Committee by Chuck K4HF: The slate of nominees for 2003 positions was announced. The election will be held at the November meeting. The nominees are:

2003-2004 Officers and Committee Chairs from the Nominating Committee

Officers for 2 year terms:

President: Andy Peterson, NI4S

Secretary: Virginia Enzor, KG4PFA

Officers for Remaining VP term (1 Year)

Vice President: Dick Bitner, W8HYD

Board Members for 1 year term:

Public Service Director: Bob Breyer, K1RCB

Public Information Officer: Gary Pearce, KN4AQ

FM Repeater Chair: Frank Scaraglino, KA2FWC

RARS 2004 Hamfest Chair: Hank Montgomery, K4HM

RARS Exciter Editor: Denyse Walter, KG4CXR

RARS Net Manager: Mary Holtschneider, KG4OQA

At-Large Director: Johnnie Mayfield, WA9SZL

At-Large Director: Selene Montgomery, KG4RMT

At-Large Director: Jim Walter, KG4FIJ

RARS Membership Chair: Denyse Walter, KG4CXR

ARRL Liaison: Chuck Littlewood, K4HF

W4DW, W4RNC Trustee: Jeff Wittich, AC4ZO

Education Director: Bob Conder, K4RLC

RARS 2004 Field Day Chair: Neal Fisher, N4HAF

RARS Volunteer Exam Coordinators: Liz and Joe White, KO4CK & WA4GIR resp

RARS Web Master: Tim Nicholson, W4NOT



Jack W0UCE is the auctioneer

The annual RARS auction was held, with Jack W0UCE as auctioneer.

Meeting adjourned at 8:30 PM. Respectfully submitted, Jim Walter KG4FIJ, Secretary



Everyone is waiting to bid on an item



What did you buy? How do you use it?

Photos by Andy NI4S

Weather Isabel While Serving Vanceboro Shelter

by Israel, N4ZVU & KI4CED

Families seeking shelter at the Vanceboro Farm Life Elementary School may not have known about the portable radio station operating in one of the school's back hallways or what effort it took to get it there. Red Cross volunteers and Craven County emergency management officials, on the other hand, could rest easier knowing that amateur radio was on the scene.

When we contacted NC4EO that Thursday morning, Camille, KI4CED, and I had no idea what assignment we'd be given. Craven County? Where's that? Can we get there before it's too dangerous to drive? What equipment will we need? We decided to find out.

It took us about 40 minutes to get ready. We threw together a quick overnight bag and a sleeping bag just in case. I had assembled and tested my portable station the night before: a Radio Shack HTX-242 VHF FM mobile, a mag-mount 5/8ths wave 2 meter antenna, and a 200 amp-hour deep cycle marine battery. I added an AC/DC inverter, my laptop, and my cell phone charger for good measure.

Once on the road, things seemed to be manageable -- somewhat windy with occasional gusts and light rain. The stations at the State Emergency Operations Centers, NC4EO and NC4EB, provided wonderful directions, getting us to Kinston in just under 2 hours. Then it started to get tricky.

At the sight of the Kinston city limits we switched over to the Trenton 145.21 repeater. Our contact in Craven County was Bruce, N8UTY. Bruce guided us through Lenoir and Craven counties through torrential rain, falling trees, and downed power lines all the way to New Bern. Once we reached the outskirts of New Bern, Bruce and I switched to the local 146.61 repeater for the last leg of the trip to Vanceboro.

I do not recommend driving through the middle of a hurricane. By 11 AM we were hydroplaning and dodging debris littering the highway. Camille, ever calm, simply watched as the sheets of horizontal rain beat down upon fields of crops, small communities, and swollen rivers as we raced by. Thankfully, we made it safely to Vanceboro.

With a sigh of relief we arrived at the elementary school in Vanceboro where we'd be weathering the worst part of the storm. Over 150 people were already there; many had arrived the night before. The volunteers were helpful, showing us the way to the counter where we'd be operating.

The local ARES volunteers had already installed a 2 meter vertical antenna on the roof prior to the storm. A length of coax cable dangled from the air conditioning duct over the counter. With the antenna already installed it only took a few minutes to set up the station and check in to the local ARES net. We were ready, and just in time. Soon the electri-

cal mains had failed and the storm was upon us.

It is truly a rewarding experience to know that you're providing a vital communications link during an emergency, and none of us look forward to passing emergency traffic. So it comes as some relief when an event is relatively quiet. On the other hand, spending eight hours in a strange place during such an event can be very, very boring. A few cold sandwiches and many hands of solitaire later (remember the laptop?) we were happy to receive the message to stand down.

The drive home was much like the ride down with the addition of down power lines and disabled traffic signals. We were no less relieved to finally arrive at our own home in Raleigh. After almost five hours on the road and eight hours at the shelter it was good to arrive home to electricity and no damage.

Several things stand out to me about my experience in Hurricane Isabel, but none more than the steps we took to prepare for ARES operation. First, I tested my batteries. I had neglected to reattach the battery maintainer to my deep cycle battery after a recent trip and the neglect was enough to kill the battery. We were able to replace it at the last minute.

Second, we assembled and operated our portable station the night before. I never want to arrive at a shelter with a non-functional station. How embarrassing would that be? Even though I knew the radio and antenna were in working condition, it was nice not to worry about whether I had the right power connectors or whether my fuses were good. Preparing ahead of time frees your mind to think of other things (like that tree that just fell in the road).

Camille and I have a deep appreciation for all of the assistance we received from the EC's, the ARES operators at the State EOCs and in Craven County. Especially, we want to thank Bruce, N8UTY with ARES in Craven County. Bruce did an excellent job of guiding us on the road and on the air. We hope that Bruce and his fellow ARES volunteers continue to provide quality emergency communications for Eastern North Carolina.

Hurricane Comments from Hams

I helped at the NWS with Central Carolina Skywarn from approx. 3:30pm till 8pm. I received a number of reports of downed trees and one mobile home in Pitt County that lost its roof during my time. I did not receive any reports of flash flooding. The biggest surprise was the amount of rain-fall the Triad area received. The radio at NWS is a Kenwood TM-V7a dual band.
Bob WX4MMM

Isabel was almost a non-event here in Archer Lodge. Thanks in large measure to underground utilities, we didn't lose power or phone service, and the only damage was a small pine tree in the back yard that broke off about 15 feet above ground. We monitored the 20 meter Hurricane frequency and the SATERN frequencies, as well as the 146.88 and 147.27 repeaters, in case of call-out, which came at about 8 PM with a request to help man a shelter at North Johnston High School in Selma. After gathering up the emergency gear and heading for Selma, the shelter was closed and the mission aborted just as I reached Selma, so my net contribution to the event was NOTHING! Oh, well, as Milton said, "They also serve who only stand and wait!" Best 73, // Max, KO4TV, and Ruth, KE4DRI \\\

Isabel Ham Radio Activation in Baltimore County Maryland By Doug N3VEJ and Al W3YVQ

The number one thing I can think of to say now is: "The emergency services of amateur radio need YOUR help too". Normally, we have enough rostered members to handle such an event, but some were trapped by flood, some were trapped by downed wires or trees, and could not get out to serve. The result is that in the three day period, many people worked much longer than 8 hour shifts. There were many of 12 hours, and at least one 16 hour and one 24 hour stint put in by some people. Then, there's Al, W3YVQ, our Assistant Section Manager for RACES/ARES/NTS coordination. I think he got about nine hours sleep during the whole event. He was always available to help out with questions about procedure or to provide guidance in how we could serve the county and the American Red Cross. Even more important was his tireless efforts on the phone recruiting relief shifts. Meanwhile, ARES EC Jim Cundiff, KB3GFC, while putting in 12 hour shifts for his work, had a net running on 145.33 until it merged into the RACES net. His net, operated from the Red Cross Central Maryland Chapter HQ EOC, ran for 72 hours. The operators listed below worked in both nets. The bulk of the damage that forced people from their homes was bay flooding, caused by a storm surge that arrived at high tide. The surge was estimated at five to eight feet. This giant press of water was miles wide, and was formed because we were hit by the northeast side of the storm, with winds of 50 mph and more coming out of the south, straight up the bay.

The EOC (Emergency Operations Center, Towson) was opened by the county. This one location has representatives from all the county agencies that may be needed. There are also representatives from BG&E, the state police, and other places such as the American Red Cross, depending on the nature of the activation. RACES was also requested and went on the air at 3 PM using the 146.67 repeater. The first shelters to open were at Arbutus Middle School and Stemmers Run Middle School. Things got exciting at Arbutus around midnight, as the storm fury built in intensity. The power went out, and the emergency lights came on. An alternate facility was identified to move everyone into, but the shelter manager turned it down, since most of the clients were asleep and didn't know the lights were out. Stemmers Run had more than enough going on, with school buses bring people in. They reached capacity in the middle of the night, and a new shelter opened at Eastern Technical High School. The Arbutus shelter was able to close down on Friday. On Saturday morning, as people returned home, the Eastern shelter was merged into the Stemmers operation. There were about 10 clients remaining in Eastern at this time. Later in the afternoon, buses returned residents to their neighborhoods. Many, especially from Turner Station, were not able to stay in their homes. In some cases, there was oil inside from overflowed oil tanks. In other cases, the mold had already started to grow, or bed furniture was soaked. About a hundred people therefore returned to the shelter for another night.

Here's a rundown of how BARC members and friends worked. You'll notice in the list that there were several newcomers to the club and a few new hams helping out. ARES started at the ARC EOC at 6 AM on Thursday. RACES started up at 3 PM on Thursday, as the winds started to pick up. Operators went to the two shelters and the EOC.

W3YVQ thanked the following operators and said "...I am proud of the work you all did during this event. Some folks on the roster did not make out very well in the storm, and were not available. Our best wishes go out to all of them..."

Home Station Liaison to Section Mgmt, BACO RACES Officer and NTS liaison, W3YVQ Al
BACO EOC: K3FT Chuck, N3VEJ Doug
Arbutus Shelter: AA3SB Robin, N3JYO Andy, N3VEJ Doug, WA3TOY Kurt
Stemmers Run Shelter: AC3P Frank, AC3F Pat, N3WD Bill, WB3FMT Joe, KI5TD Lou, N3WJA Ed, N3VEJ Doug, N3NJS Adam, KB3GFB Kathy, KB3GFC Jim, AA3SB Robin, N3ZBQ Marty, KA3KMK Albert, KB3GIR Milton
Eastern Tech HS: N3VEJ Doug, N3WJA Ed, KB3EQH Jeff (SCOT from PRGE), AC3P Frank, WA3TOY Kurt, KB3GFC Jim
Red Cross EOC: N3QXX Chris, WB3FMT Joe, KB3JQQ Scott, N3WKE Rusty, N3CVA Ian, AA3SB Robin, KI5TD Lou, K3VTT Myles, N3WVT Jason and KC0EKL Frank, who is the client ARC communications officer.

Manning the Enloe High School Shelter

I manned the Enloe HS shelter for Wake Co. ARES. I did the 10:00 PM to 8:00AM shift Thursday night. This is the second time I volunteered at the Enloe shelter. This time manning the shelter was much better than my Fran experience. Enloe now has a permanent generator installed that provides power to the gym, kitchen, bathroom and entrance area, which was a good thing since they still did not have site power when I left.

I took a mobile rig and 12v battery. I used a mag mount on a 30" square sheet of aluminum sitting on the floor for an antenna. I ran low power on the transmitter with no problems hitting the repeater. Wake Co. provided cell phone and most of the personal cell phones of the shelter workers did not work well in the building.

The Wake Co. employee volunteers manning the shelter were great and there was plenty of hot food. I managed to get a couple of hours sleep. I went straight to work from the shelter. I was probably quite a sight, unshaven, wearing my orange skywarn T-shirt and the clothes I slept in. I wasn't fully conscious but I managed to hang in at work through a 2:00 PM meeting then went home and crashed.

Manning a shelter is easy, fun and your presence is greatly appreciated. 73 Ken Boone KD4JMK

As the hurricane moved out of North Carolina Thursday night, I began hearing requests for hams from the counties in the northeast part of the state on the Tarheel Emergency Net and on ARES e-mail reflectors. After taking care of chores on Friday, I loaded up and headed east, right behind Dave KE4IAF from Greensboro.

The 146.835 repeater in Columbia was the hub of communications for the entire area. When we got in range, we announced our presence to Eastern Branch Headquarters station NC4EB in Kinston. There was some confusion about just where hams were needed. Dave believed he should be headed to Perquimans County, where we heard they lost the tower carrying all police, fire and EMS repeaters. Eastern Branch didn't know anything about that, and nobody was on the repeater from that county. The Washington County EOC was on the air, requesting 10 hams to help, and a message came from Hyde County saying there were no hams, and no communications there.

When it all got sorted out, it turned out that the tower did fall in Perquimans County, hams were handling communications for 911 services, and they needed help. That's where we were assigned. Power was out to the entire county, and not expected to return for days or weeks. It was dark, very dark, when we arrived.

I ended up at the 911 center in Hertford, and found that the dispatchers had limited telephone service to the county, and

some cell phone coverage (my Verizon phone, using United States Cellular towers, worked fine everywhere I went across the affected counties). There were no radios or antennas at the 911 center except for a few handhelds. Their consoles talked only to the dead repeaters by wire.

Hams manned some of the fire departments, one Rescue Squad, the EOC, a shelter and a material staging area. We used the Elizabeth City 146.655 repeater to communicate, sharing it with operations in neighboring Pasquotank County.

I put a dual-band antenna on the roof of the building, running coax through a hole that was just a little too small for a coax connector (I had to squash the collar into an oval to get it through, then bend it back into a circle). I set up one of my handhelds that had been modified for out-of-band coverage on the city police UHF frequency, allowing the dispatchers to talk to police cars at least round town on simplex. The police radios had a channel set up for simplex - or "talkaround" as they commercial people call it - on the repeater output. I set up another radio on the VHF fire frequency.

By Saturday night, the county repeater technicians (both hams, but inactive because "we work on radios all day, and don't feel like playing with them when we get home") had been able to move the police repeater to another tower. Fortunately, the repeaters were not damaged when the tower fell. They brought in a mobile radio and replaced my HT, but kept using the dual-band antenna that I put on the roof.

On Sunday, they found a tower and VHF antenna they could use for the Fire Dept. repeater. EMS would share the fire repeater for the time being. Our job was done, and I headed back to Raleigh on Sunday night, but many more hams stayed on into the week.

The confusion about what areas needed hams was caused in part by the fact that the Perquimans EOC was using the Elizabeth City repeater, and was not routinely monitoring the Columbia wide-coverage machine. They sent out their request for operators on Thursday, and went back to work. So they didn't know we were available when we popped up on Columbia on Friday afternoon. Eastern Branch had passed the message along when they received it on Thursday evening, but evidently didn't keep it "hot." I can understand why that happened. When I started working at the 911 center, my attention focused entirely on getting things working there. The rest of the world disappeared until I headed back to Raleigh on Sunday.

Gary KN4AQ

Editors Note: I would like to thank everyone for their contribution articles on Hurricane Isabel. Amateur radio operators do make a difference.

ARES/RACES in Wake County and North Carolina

By Gary KN4AQ

Most RARS members know what ARES is, but here's a quick review for those not too familiar with this "invisible army" of hams.

The initials mean Amateur Radio Emergency Service (and it's pronounced AIR-eez). It is the organization of hams who volunteer to provide emergency communications to several "served agencies." The big ones are Emergency Management (county and state), and the Red Cross. Sometimes the Salvation Army uses ARES hams when they set up for disasters. The hams who go to an EOC, a command post, staging area, shelter or other site to provide communications are working under the ARES banner.

ARES is an ARRL program. Hams in the leadership positions explained below must be ARRL members, but volunteer hams do not. The organization structure is simple, and is based on the organization of the state's emergency management. You can see a map on the Wake ARES site <http://wakeares.org/leaders.html>. That site lists our leadership, with phone numbers, e-mail addresses and other contact information.

County: the top guy in the county is the EC (Emergency Coordinator). In Wake County, that's Tom Brown N4TAB. Since Raleigh is the Capital and North Carolina Emergency Management (NCEM) is based here, we have a second EC: John Guerriero KG4HDT the EC for NCEM. The EC's can have assistants, and a few other positions under them, like PIO (public information officer).

Area (District): Wake County is one of six counties in "Area 7." The "Area" structure isn't used much in ARES, but there is a "DEC" (District Emergency Coordinator) at that level for each of the state's 15 Areas. Jim Lewis N4PE in Rocky Mount is the Area 7 DEC. Some Areas have occasional meetings between the EC's. I haven't heard of one for Area 7 EC's in my 13 years in NC. Most of our urban neighbors - Durham and Orange Counties - are in Area 10, and we coordinate more with them than we do with some of our Area

7 neighbors (not that we ignore the others... we just have more frequent business with Durham and Orange).

Branch: the state is divided into three branches - Western, Central and Eastern. Wake County is in the Central Branch. The three branches have headquarters for Emergency Management logistics. The one you hear about is the Eastern Branch (with ham station NC4EB) in Kinston, because that's where the action usually is. The Central Branch doesn't use its headquarters much - it uses the State EOC in Raleigh. I think the Western Branch headquarters is in Hickory, and you might hear from them during winter storms and Nuclear Plant drills. Each Branch has an Assistant Section Emergency Coordinator (ASEC). Ours is Tom Simpson N4UCO in Wilson.

State: The top position for ARES in the state is the Section Emergency Coordinator (SEC). That's the recently appointed Bernie Nobles WA4MOK in Greenville. During Isabel, Bernie worked out of the Eastern Branch office. Note that it's called the "Section" Emergency Coordinator rather than the "State" Emergency Coordinator because some states have more than one ARRL Section, and each Section handles its own administration. North Carolina is a single ARRL Section, though now and then someone in one part of the state or another feels forgotten and makes noise about splitting into a separate Section. It could happen one day.

The state's top position overall is the Section Manager, John Covington W4CC. John appoints the SEC, and maintains a strong interest in ARES, but the SEC runs the ARES operation.

Division: North Carolina is in the ARRL's Roanoke Division (did you know that?). I tossed it in because it exists, but has no function in ARES operation.

Nation: ARRL headquarters does some administration for ARES, but does not run the show, and only rarely intrudes on local decision-making. In Virginia, there was a big problem between the SEC and many county EC's a few years ago.

(Continued on page 13)

The ARRL Executive Committee asked the SM to fix it. He didn't. The League removed the top guy, SM, not the SEC. The new SM appointed a new SEC. The old SEC retreated to RACES and took over that group, splitting it from the ARRL/ARES. That is another story for another day).

SKYWARN: SKYWARN is an ARES program in most areas, including ours. SKYWARN organization follows the coverage areas of the various National Weather Service offices, which do not correspond to the NCEM Areas and Branches at all. So there's a separate SKYWARN EC for each NWS office (John Van Pelt K4JVP is EC for Central Carolina SKYWARN).

RACES: This is the Radio Amateur Civil Emergency Service. It is a subset of Amateur Radio with operation limited by FCC rules. It is loosely run by FEMA, but State and County Emergency Management is really in charge of RACES. Amateurs do the actual RACES management, and you must have a ham license to transmit on a RACES station. (In ancient history, some Emergency Managers installed "RACES" radios in their vehicles and used them, without ham licenses, as if they were government radios. That doesn't happen anymore).

In many parts of the country, including North Carolina, the hams running and participating in RACES are the same as the ones running and participating in ARES. RACES has positions like "State Radio Officer," which in NC is also our SEC, WA4MOK. We don't use the RACES label much. There is no advantage to it. No additional privileges, frequencies or modes are available (in fact, if an operation is truly RACES, there are fewer frequencies available). Until a few years ago, if the President invoked the War Powers Act (declaring America at war), ham radio would be shut down while RACES could continue to operate. Amateur Radio is no longer automatically shut down in times of war (obviously, since Korea, Viet Nam, and recently Iraq).

In some parts of the country, though, hams have decided to organize their emergency communica-

tions exclusively under the RACES banner. And in a few places, like Virginia, RACES operates as an alternative or competitor to ARES. I mentioned that a former Virginia SEC "took RACES with him" when he was booted out of ARES. That isn't likely in North Carolina. The state has signed a memorandum of understanding with the ARRL that NC ARES will manage the RACES program in this state.

Baltimore County operations during Hurricane Isabel

All RACES operations were on the W3FT repeater, 146.67-. ARES worked on 145.33- until that repeater went off the air. Home stations provided links to HF, but the Maryland Emergency Phone Net (MEPN) was never activated. This net normally meets at 6 PM ELT on 3920 khz.

The EOC is equipped with a Kenwood 7950 and a Clegg, both 2-meter radios. There is also six meter gear that was not used for this event. The antennas are several hundred feet away. The EOC is located under a plaza between two courthouse buildings. The antennas are on the roof over seven floors up, and a hundred or more feet across the plaza.

On Saturday, EOC workers got lunch on the surrounding streets. The streets were blocked off for the African American Heritage Festival.

Everyone took their own gear to the shelters. Two were close enough to a receive site for HTs to be full quieting. One shelter, in Arbutus, required mobile rig power to reach the repeater.

The ARES net ran 72 hours. The RACES net was 66 hours, and involved up to five stations plus the SEC and other counties checking in.

By Doug N3VEJ and Al W3YVQ

RARS NEW MEMBERS

September/October 2003

We would like to welcome our new members to RARS.
Thank you for considering us for your amateur radio club.

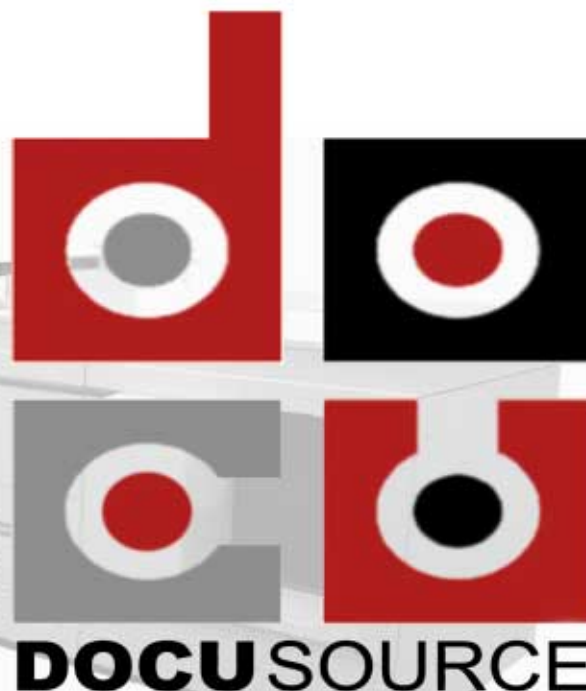
Michael	N4MC
Nick	W1GYF
Jim	KI4BZB

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**The Central Carolina
Skywarn Net Meets
Tuesdays at 9:15 PM
on 146.88 Repeater**

Remember to give damage reports AFTER the storms as well as DURING the storms.



Photo by Denyse KG4CXR

The skywarn dinner was held at the El Rodeo Mexican Restaurant in Raleigh on Sept 28. John VanPelt EC for Central Carolina skywarn spoke to us about being on the East coast during hurricane Isabel with CNN.

Our next dinner will be **Oct 26, 2003** at the El Rodeo Mexican Restaurant at 6:00 pm. The address is 4112 Pleasant Valley Road, just off Glenwood Ave. in Raleigh. Please join us, our speaker will be Jeff Orrock.

CAROLINA
440
RAGCHEW

444.925 Durham 444.325 Holly Springs
444.375 Henderson 444.150 Clayton
444.775 Cary PL Tones = 100.0Hz
Monday nights at 7:30pm
KD4RAA/K4JDR Repeater Group

Join Us At the RARS Dinner



**On 4th Tuesday, 6:30 pm at
Golden Corral on Glenwood Ave.**

HAMFEST CALENDAR

October 25	Sumter, SC
November 8	Myrtle Beach, SC (new location)
NOVEMBER 16	BENSON, NC
February 8	Richmond, VA
February 22	Elkin, NC
March 13-14	Charlotte, NC
March 21	Kinston, NC
March 27-28	Baltimore, MD
APRIL 4	RARSFEST, RALEIGH



Courtesy of the SERA Repeater Journal

FALL PUBLIC SERVICE EVENTS BEGIN



ADA WALK September 6, 2003
John KG4SWI, Annie KG4SWF, Liz
KF4UQZ, Larry KG4FIQ and Jim WJ2F
Instructions given by Coordinator for the
Walk for Diabetes at RTP
Photo By Denyse KG4CXR



MS 150 Bike Tour September 13-14. The route
was similar to last year's figure 8 centered in
New Bern, NC. Several new hams participated
this year and fun was had by all. The event was
rain free till the last few hours on Sunday. Plan
for next year in September and join the hams to
help out.
Photo by Gary KN4AQ